## **Appendix**

## 1. Swasey Fires Success Story:

1972 Swasey Fire

This fire started on August 11, 1972 shortly after 2:00 P.M. The fire report states that the wind was 10 mph from the South. No relative humidity or temperatures are listed in the report. The fire cause was listed as arson / playing with fire (12 year old male with matches). Fire behavior was reported as extreme. Several firefighters were trapped and sought refuge in a house located at the end of Gas House Hill Rd. The fire rapidly burned from its origin into the historical town of Old Shasta. Several spot fires burnt north of Hwy 299W. The hillsides were left bare after the fire.

The fire damage listed in the report is:

1933 acres

- 8 Dwellings
- 2 Mobile Homes
- 4 barns
- 9 sheds
- 4 miles of power lines
- \$123,725.00 damage

The area has re-grown with dense stands of brush, knob cone pine, and a mix of hardwoods. This area was previously denuded by mining activity as noted in the Historical Fuels Modification section. It is also an example of the need for post-fire maintenance. The original landscape was modified by human activity and has grown, burnt, and re-grown back to a hazardous condition.

2002 Swasey Fire

This fire started on September 2, 2002 at approximately 12:06 P.M. Reported Weather conditions recorded at 2:00 P.M. were; wind 4-6 mph gusting to 10 from the East. The temperature was  $100^{\circ}$  F and the relative humidity 12 %. The average live fuel moisture collected from Swasey Drive between 08/12/02 and 10/30/02 was 63%.

Responding fire personnel noticed two distinct columns of smoke indicating the possibility of two separate fires. Witness reports confirm the existence of two separate fires that burnt into one larger fire. The fire cause was undetermined. Several outbuildings, contents, and numerous vehicles were damaged or destroyed totaling an estimated \$69,000.00. Power and telephone utility lines were also damaged but no damage estimate was reported.

The fire rapidly spread uphill from two separate fires located approximately 400 yards apart. Initial fuels on the road were grass that quickly transitioned into brush and trees both conifer and hardwood. Ladder fuels were extensive and the canopy was continuous. The fire in the brush and conifers had an estimated 30-foot flame length with heavy spotting downwind from the fire up to ¼ mile ahead of the main fire. Spot fires occurred as far away as east of Mule Mountain Road. Fire activity slowed slightly after cresting the hill and began spreading into the Middle Creek drainage. Torching, crowning and spotting continued.

Spot fires landing in the fuel break along Mule Town Road were very small and slow growing whereas those occurring outside the fuel break quickly caused torching and additional spotting. Also spot fires starting in individual treatment areas below residences on Winthrop Ct. grew no larger than two to four feet in diameter. The slow spread of the spot fires in the treated areas was critical in controlling the fire.

Had these leading edge spot fires occurred in the fuels that existed prior to treatment, the fire most likely would have rapidly spread across Mule Town Rd to the ridgeline.



